



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,314	10/11/2007	Maurice Bourlion	CPL-06-1214	6499
35811 7590 03/11/2010 IP GROUP OF DLA PIPER LLP (US) ONE LIBERTY PLACE 1650 MARKET ST, SUITE 4900 PHILADELPHIA, PA 19103			EXAMINER SMITH, FANGEMONIQUE A	
			ART UNIT 3736	PAPER NUMBER
			NOTIFICATION DATE 03/11/2010	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

Office Action Summary	Application No. 10/589,314	Applicant(s) BOURLION ET AL.	
	Examiner Fangemonique Smith	Art Unit 3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on November 9, 2009. Examiner submits the amendment included claim 22 having amended claim language, however being identified as a new claim. In the future, if the Applicant would like to introduce a new claim that has yet to be presented in the case, the claim should be marked as a new claim and the claim should assume the next claim number available according to an ascending numerical order. If Applicant would like to the claim, Applicant needs to use the proper status identifier "Currently Amended". For sake of examination, Examiner considered claim 22 as being an amended claim. Examiner acknowledges the amendment of claims 17-22, 26 and 27; and the addition of new claims 30 and 31. Claims are 17-31 are pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 17-23 and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lum et al. (U.S. Patent Number 6,391,005) in view of Pearlman (U.S. Patent Application Publication Number 2003/0105410).

In regard to claims 17-31, Lum et al. disclose a device which determines a penetration depth of the object by sensing the impedance of the material penetrated. The device disclosed by Lum et

Art Unit: 3736

al. is a apparatus which includes a shaft with penetrating tip, for penetration into an object. The

Lum et al. apparatus further includes two conductors (120, 122) which act as two electrodes.

The sensors are electrically wired, therefore there is a source of current which is supplied to the

at least two electrodes during the operation of the device (col. 3, lines 11-27). The electrodes are

positioned on the penetration instrument for measuring impedance between the electrodes (col. 3,

lines 11-53). The electrodes are arranged such that the first electrode has a contact surface

coinciding with a distal surface of the penetration instrument and the second electrode has a

contact surface coinciding with a lateral surface of the penetration instrument (Figure 2A).

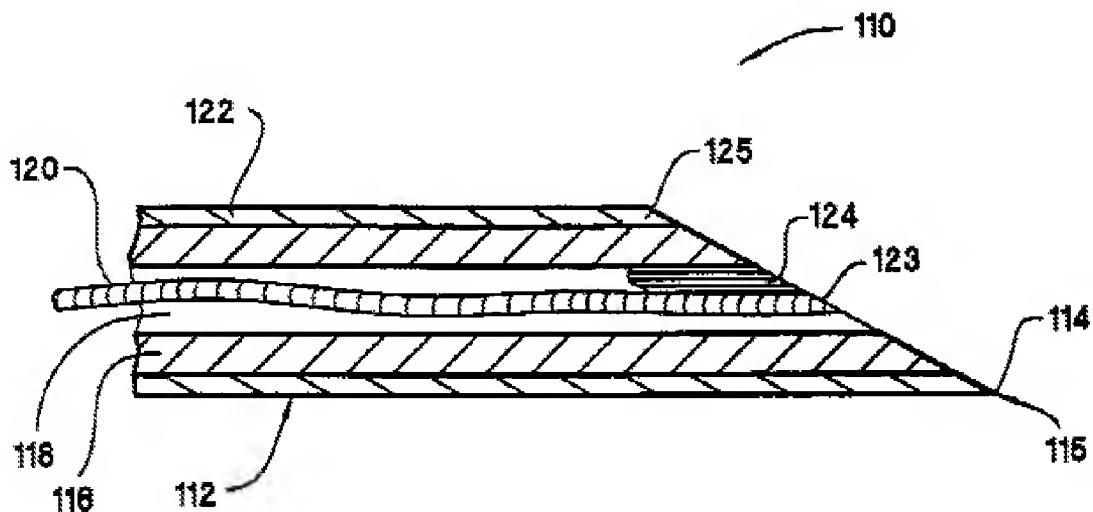


FIG. 2A

The contact surfaces of the device are positioned such that the degree of penetration can be

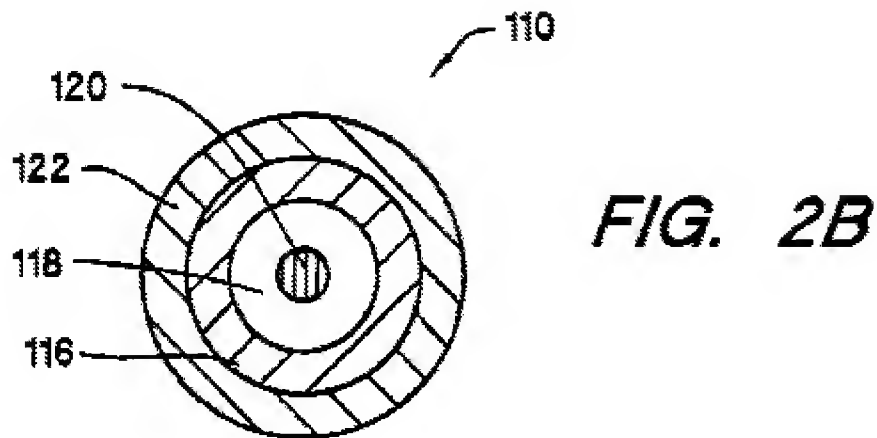
determined. Lum et al. discuss various designs for the penetration instrument including having a

constant contact surface which coincides with the degree of penetration of the penetration

instrument in the anatomical structure. (col. 3, lines 59-67; col. 4, lines 1- 25). Figure 2B shows

Art Unit: 3736

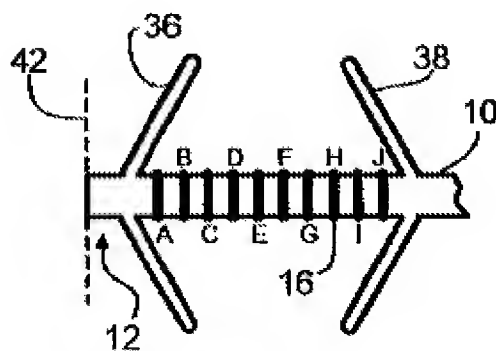
the two electrodes being symmetrically and coaxially arranged. This annular arrangement has the electrodes separated from each other by insulation (Figure 2B).



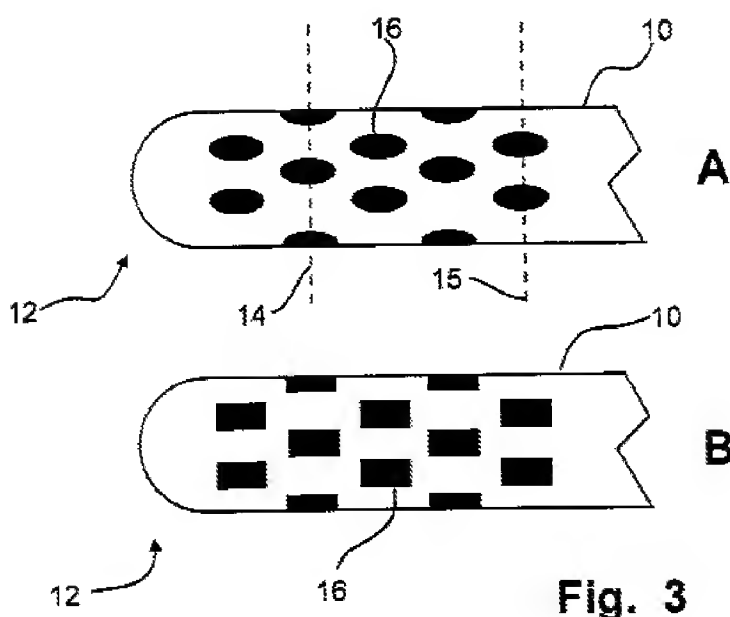
The device is designed to detect signals which are generated to measure the impedance variation and record the information during the analysis. Lum et al. disclose the device having an autonomous operating mechanism in which the device is designed to stop penetration upon reaching a predetermined depth or impedance measurement is reached. A central channel (138) is disposed within the device as described by Lum et al. This lumen is capable of being used to introduce another instrument to the target area. Lum et al. disclose the features of the Applicant's invention as described above. Lum et al. do not specifically disclose having at least three electrodes. Jenkins et al. disclose an apparatus for determining impedance within the body of a patient having at least three electrodes positioned about a probe. The device disclosed by Jenkins et al. suggests using the probe for measuring the impedance of tissue at a desired target

Art Unit: 3736

site within the body of a patient. Jenkins et al. further disclose several arrangements for the electrodes, including an arrangement annularly spaced on the probe creating a contact surface for the electrode which allows the impedance of the tissue at the target area to be determined (Figure 5C).

**Fig. 5C**

This arrangement includes an electrode contact surface which coincides with the lateral surface of the penetration device. Other arrangements of the electrodes include a coaxial arrangement (Figure 3).

**Fig. 3**

Art Unit: 3736

This arrangement includes an electrode contact surface which coincides with the distal surface of the penetration device. It would have been obvious to one having ordinary skill in the art at the time the Applicants' invention was made to modify a device which determines a penetration depth of the object by sensing the impedance of the material penetrated, similar to that disclosed by Lum et al., to include a plurality of electrodes with various arrangements, similar to that disclosed by Jenkins et al., to gain impedance measurements between various pairs of electrodes during use of the device at a target site over a tissue area range (paragraph [0044]).

3. Claims 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lum et al. (U.S. Patent Number 6,391,005) in view of Pearlman (U.S. Patent Application Publication Number 2003/0105410).

In regard to claims 24-27, the combined references of Lum et al. and Jenkins et al. disclose the features of the Applicant's invention as described above. The combined references do not specifically disclose the device forming a sound upon reaching a desired impedance or a desired target area. Pearlman et al. disclose an apparatus for aiding the identification of tissue type. The device disclosed by Pearlman includes a probe with electrodes for measuring the impedance of the tissue at a desired target site. The device disclosed by Pearlman further includes a feature which produces an audible sound which is proportional to the impedance measured by the device (paragraph [0172]). Pearlman suggests the audible sound be a sound signal whose frequency is a function of the impedance measured, which is capable of either increasing or decreasing as a function of impedance. Other sound options disclosed by Pearlman include tones, beeps, clicks, etc. capable of indicating various activity of the device. It would have been obvious to one having ordinary skill in the art at the time the Applicants' invention was made to modify a device

Art Unit: 3736

which determines a penetration depth of the object by sensing the impedance of the material penetrated, similar to that disclosed by the combined references of Lum et al. and Jenkins et al., to include an audible signal, similar to that disclosed by Pearlman, to assist with distinguishing the variation in impedance within tissue at a target site upon use of the device in locations of poor visibility.

Response to Arguments

2. Applicant argues the prior art references fail to meet limitations of Applicant's invention as amended. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fangemonique Smith whose telephone number is (571)272-8160. The examiner can normally be reached on Mon - Fri 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on 571-272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3736

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FS

/Max Hindenburg/
Supervisory Patent Examiner, Art Unit 3736